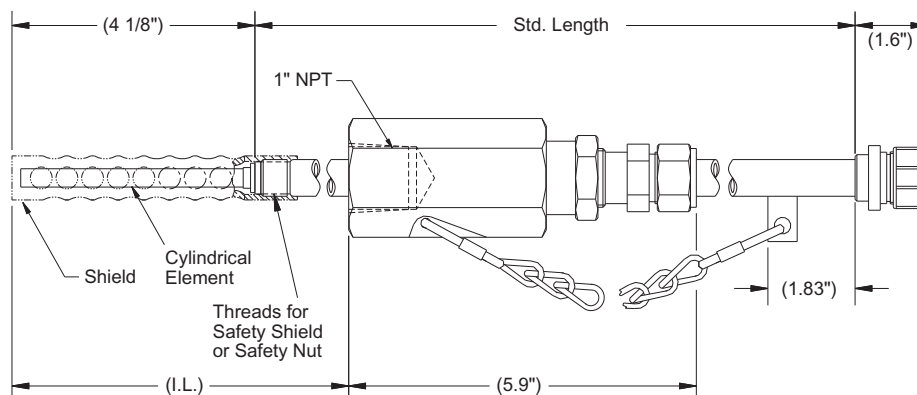


Model ER4100

Electrical Resistance Probe Retractable with Packing Gland and Cylindrical Element



Model ER4100 is a retractable, electrical resistance probe commonly used in field and plant applications. The all-welded design allows the probe to be used in harsh environments. A specially designed packing gland is used with the probe for insertion into or retraction from a pressurized system without a process shutdown. Standard packing material in the packing gland is Teflon[®], however, Grafoil[®] packing can be provided for high temperature applications*. When the probe element requires replacement, the packing gland assembly may be reused. (Probe packing should also be replaced at this time.) The probe is designed to mount onto a 1" piping system, but can easily be adapted to fit your specific requirements. The probe assembly consists of a replaceable insertion rod with an element, a hermetically sealed connector welded in place, and a packing gland. A safety chain and safety nut are also provided to prevent blowout. A velocity shield can be added to the assembly if required. The insertion length (I.L.) is calculated to the end of the shield or to the end of the element if a shield is not present. Probe length can be specified by the customer. For standard probes, the maximum insertion length is given in the chart below. Several standard elements are available to meet your specific needs.

Specifications:

Probe Body - 316 Stainless Steel

Element Seal - Welded

Fill Material - Ceramic

Temperature Rating - 500°F / 260°C - Teflon[®]
850°F / 454°C - Grafoil[®] *

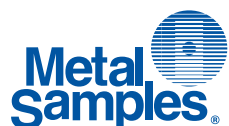
Pressure Rating - 2000 PSI / 138 Bar

Mounting - 1" Full Port Valve (Min.)

Std. Length	IL (max)
24"	20.85"
30"	26.85"
36"	32.85"
42"	38.85"

* Applications above 500°F / 260°C require the use of a high-temperature element. Contact our sales department for further details.

*The **Easy Tool** is required for probe insertion or retraction in systems with pressure over 150 pounds.*



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ER4100 Ordering Information

Model							
ER45	Electrical Resistance 1" Female NPT Probe, Packing Gland with Teflon®						
ER75	Electrical Resistance 1" Female NPT Probe, Packing Gland with Grafoil®						
ER00	Electrical Resistance Replacement Insertion Rod						
Probe Body Material							
2		316					
4		C276					
Packing Gland Material							
0		N/A (replacement insertion rod)					
2		316					
4		C276					
ER Element Options							
500		CT10 Cylindrical - 10 mil thickness (5 mil useful probe life)					
600		CT20 Cylindrical - 20 mil thickness (10 mil useful probe life)					
700		CT50 Cylindrical - 50 mil thickness (25 mil useful probe life)					
Length							
24		20.85 inches max. insertion length					
30		26.85 inches max. insertion length					
36		32.85 inches max. insertion length					
42		38.85 inches max. insertion length					
Element Alloy							
XXX		Use Code in Alloy Chart					
ER Probe Options							
00		No shield					
01		Shield, coupon adapter (118), hardware					
02		Shield, coupon adapter (220), hardware					
03		Shield					
ER45	2	2	700	36	375	02	Example of Probe Ordering #

For alloys, sizes, or other special requirements not listed, contact our sales department.

Alloy Chart					
Code	Description	UNS #	Code	Description	UNS #
375	Carbon Steel *	G10100	159	316L SS	S31603
538	5Cr 1/2Mo	K42544	A12	C276	N10276
541	9Cr 1Mo	K90941	602	Alloy 625	N06625
186	410 SS	S41000	419	CDA110	C11000
141	304 SS	S30400	434	CDA443	C44300

Note: Not all alloys are available with all element types and seals.

* Chemically equivalent to standard pipe-grade carbon steels.